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18 July 1983

MEMORANDUM FOR: Deputy Director for Intelligence  
Associate Deputy Director for Intelligence  
Director of African and Latin American Affairs  
Director of East Asian Analysis  
Director of European Analysis  
Director of Near East/South Asia Analysis  
Director of Soviet Analysis  
Director of Global Issues  
Director of Imagery Analysis  
Director of Scientific and Weapons Research  
Director of Central Reference  
Director of Current Production and Analytic Support  
Chief, Planning and Management Staff  
Chief, Arms Control and Intelligence Staff  
Chief, Collection Requirements and Evaluation Staff  
Chief, Product Evaluation Staff

25X1 FROM : [REDACTED]  
Chief, Analytical Support Group

SUBJECT : Word Processors for the DI

1. In April 1982 an all-Agency procurement board selected the Wang family of word processors as the Agency standard. In mid-1982, the DDI tasked ASG to evaluate whether Wang machines could adequately replace existing NBI word processors. ASG reached the following conclusions:

- While Wangs require more keystrokes than NBIs to input and edit text, the Wang family could meet the basic needs for word processing within the DI.

- Wangs currently cost less than NBIs. [REDACTED]

- The stand-alone Wang models 7520 or 7525 are preferable to the multi-station Wang Alliance 250. The Alliance 250 requires 100 square feet of space and adequate ventilation to accommodate a central processing unit. ~~Moreover, special cabling must be installed to link the central processor~~

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~~square feet of space and adequate ventilation to accommodate a central processing unit.~~ Moreover, special cabling must be installed to link the central processor with individual terminals, and one person would be required part-time to administer the system. The stand-alone Wang 7520 and 7525 word processors do not require a central processing unit, special cabling or administrative support. Although the Alliance 250 has several convenient features not found on the stand-alone models, similar features are available to analysts on the central (VM) computer system.

- ODP is currently testing a link between the VM system and Wang word processors. This link would permit analysts to prepare drafts on VM and to transfer their drafts to a Wang word processor for final editing and printing. Drafts can also be entered on a Wang and transferred to VM. ODP plans to make the link available for user evaluation in August. No further work will be done on a link between VM and NBI word processors.
- The word processing capabilities which reside on the VM system (SCRIPTX, EZPUB and Host-Based Word Processing) may also be used in conjunction with planned high-quality regional printers to meet some DI word processing requirements. ASG is currently evaluating this possibility.

2. Based on our evaluation, we recommend that the DI offices consider the following points when planning for the acquisition of word processors:

- The DI may not lease or purchase additional NBI word processors. NBIs currently in the DI may be retained, however.
- DI offices should not use the Wang Alliance 250 as a basic word processing system.
- Offices that need additional word processors immediately should order the Wang 7520 or 7525. Those that can afford to wait for a period may wish to try to obtain any NBI that is turned in as surplus.
- Offices that now have NBIs and plan to obtain Wangs should be aware that the two machines are not compatible. Separate training is needed for each, and the disks are not transferable from one machine to the other.
- For those branches or divisions that frequently incorporate computer-based data into final drafts and memoranda, offices should consider phasing out the NBI and acquiring the Wang 7520 or

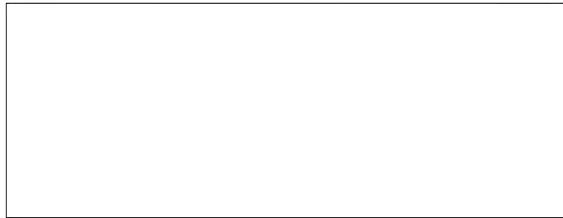
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7525. While the VM-Wang link is still under development by ODP, planning for acquisition, terminal link-up and training will take time and should begin soon.

4. A summary of the ASG evaluation its attached. It has been reviewed by the Office of Data Processing.

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## Comparison of Word Processing Capabilities of Wang and NBI

Analytical Support Group  
Project Report

1 June 1983

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This report was prepared by [redacted]  
and [redacted] Resources and Technologies  
Branch, Analytical Support Group. Comments and  
queries are welcome and should be directed to the  
Chief, Resources and Technologies Branch, ASG,  
telephone [redacted]

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Background

During the past few years the requirement for and the use of word processing systems has grown across the Agency. In order to simplify the procurement process, minimize maintenance costs, and obtain a favorable price on a large purchase, the CIA decided to identify a standard word processing system. A request for proposal (RFP) was prepared which emphasized that the selected system must provide basic word processing capabilities, a facility for communicating with the Agency's interactive computer system and other word processing systems, and meet TEMPEST certification. In early 1982, the Wang family of word processors and office automation systems was adopted as the Agency standard.

DI personnel took part in the requirements generation process, the evaluation of the responses to the RFP, and in the selection process. During these activities the DI stated that the NBI word processing equipment already in place in numerous locations across the Directorate adequately met DI word processing needs. It was also mentioned that any replacement of the NBI equipment would be made only if the new equipment was suitable as a basic word processor, and only if there was minimal or no disruption to DI production activities.

In mid-1982, the DDI asked the Analytic Support Group to determine whether the Wang family was a sufficient replacement for the existing NBI equipment. The top-of-the-line Wang Alliance 250 system was selected for evaluation. In addition to basic word processing, the Alli-

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ance also included a number of other capabilities (calendar, text indexing) and potentially had the lowest cost per terminal of all the Wang systems under review. A separate, smaller scale, evaluation of the Wang 7520 stand-alone word processor was also undertaken. Finally, other components were asked to comment on their experiences with Wang word processors.

### Findings

We reached six conclusions as a result of the Wang-NBI comparison:

1. The Wang Alliance is more difficult to place in the DI environment than is the NBI. Installation of the Alliance requires extensive planning as to the location of the CPU, disk drives, and all terminals and printers. Approximately 100 square feet per system are required for the CPU and disk drives. Because of the noise and heat, this area should be away from personnel. Special ventilation units may also be necessary to insure the temperature does not exceed 90 degrees. The NBI by contrast requires no special CPU, nor cabling, and can be installed in as little as six square feet of space. The Wang 7520 stand-alone is comparable to the NBI in that it requires no cabling, and can also be installed in six square feet of space.

2. The Alliance requires more daily maintenance than the NBI. One person must act as System Administrator to monitor the system and perform routine functions. We believe that the required backup and

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maintenance will be done on a regular basis and better performed by a single administrator rather than depending on each user to perform these duties for himself. Time must be allotted to filing, backups, and database updates. The system must be powered up each morning and the date and time clock filled in. Each evening a check must be made to insure all users are off the system before it is powered down. Security precautions must also be taken to store the disk packs in a vaulted area or safe. Terminals must be logged off when unattended and print queues cleared.

3. The NBI requires no special monitoring by an administrator on behalf of all users. Each user is responsible for his/her own work and file maintenance. The system is turned on and off by one switch and can be turned on by any user at any time. Power up is nearly instantaneous. Diskettes are classified and must not be left in the NBI when it is unattended; they must be stored in a secure area.

4. The basic word processing functions on the Wang were found to be adequate but not superior to the NBI. Some of the features the test participants objected to on the Wang could be enhanced by using the glossary feature, which was not evaluated. ODP has discussed DI-recommended changes with officials at Wang. The DI test participants disliked formatting a document on the Wang, the insert function, the numerous menus and added keystrokes.

5. The Wang has two features that are comparable to or better than the NBI. The first is the way text can be moved from one place

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in a document to another. Where both systems can perform this function, moving text on the Wang is easier than on the NBI. Second, setting tab stops on the Wang is less cumbersome than the NBI. The NBI does offer three more types of tabs, however. The Wang also offers a spelling verifier which is a useful feature that is not available on the NBI. This feature is not available on the Wang stand-alone word processors, however.

6. There is an issue regarding TEMPESTing of word processors in Agency buildings. Wang word processors are TEMPEST approved and can be located in out buildings as well as in the Headquarters compound. The numerous non-TEMPEST NBI machines located in the DI Headquarters building are allowed under the conditions of a waiver. The few NBIs located in out buildings have met specific conditions (addition of a line filter, placement away from external walls) established by Communications Security Division, Office of Communications. A new policy currently under review seeks a relaxation of the TEMPEST requirements for the Headquarters compound (no waiver required for NBIs) but it will not be ready for implementation until the fall of 1983. COMSEC recommends against the movement of NBIs from Headquarters to out buildings and suggests that as leases expire on existing NBIs that consideration be given to acquiring TEMPEST approved word processors.

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Based on our study, we recommend the following:

- DI offices should not use the Wang Alliance 250 as a basic word processing system. For current stand-alone word processing, we recommend that either the Wang 7520 or 7525 word processor be looked at first to fill the need. They are readily available (45-60 days), are the Agency standard, and have clear cost advantages. In making this evaluation, we encourage offices to factor in the training requirements for a new word processor and the potential for incompatibility that may arise from a mix of NBI and Wang equipment in a single division or office.
- If offices decide that NBIs best suit their requirements, only NBIs turned in as surplus should be assigned to DI components requesting them.
- We recommend that existing NBI equipment continue to be supported. This support will include maintenance and training of users. The way in which this support is provided will be the subject of discussions between ASG, ODP's Word Processing Branch, and the Office of Logistics. Neither ASG nor ODP can assist in the administration of contracts for NBI support.
- We recommend that a DI-wide word processing capability be identified that will become an integral part of the integrated office. Such a system would include first rate word processing power, quality local printers, and communication links through the VM network to facilitate review, coordination, and publication. As a first step in this process, ASG with assistance from ODP will undertake an in-depth evaluation of the Host-Based Word Processor -- an ODP-developed system that resides on VM.

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